AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions, and listings, of claims in the application.

Listing of claims

1-4. (Canceled)

5. (Currently amended) A highway vehicle tire ~~for highway use~~, comprising two beads, a bead wire within each bead, a crown reinforcement, a tread comprising a single mix of rubber, and ~~two sidewalls of single rubber~~ two rubber sidewall mixes radially connecting the tread to the beads, with the axially outer edges of the tread mix being folded over onto the radially outer edges of the rubber mixes of the sidewalls to form a junction therewith at each of the axially outer edges of the tread, wherein each said junction comprises a circular junction J between the single rubber mix of the tread and the single rubber mix of the adjacent sidewall forming on the axially outer wall of the tire a substantially circular trace of radius R_C relative to the axis of rotation of the tire, said radius R_C lying, firstly, between $0.9\ R_S + 0.1\ R_B$ and $0.8\ R_S + 0.2\ R_B$ and, secondly, between R_{SS} and $0.9\ R_{SS} + 0.1\ R_B$, where R_S is the equatorial crown radius of the tread, R_{SS} is the equatorial radius of the center line of the carcass reinforcement, and R_B is the radius of the bead seat measured on the line perpendicular to the axis of rotation of the tire and passing through the center of gravity of the cross section of the bead wire, and wherein said junction J is not covered on the axially outer wall of the tire by a joint cover.

6. (Currently amended) A tire according to Claim [[1]] 5, wherein the circular junction J between the rubber mix of the tread and the rubber mix of the sidewall is close to at least one circumferential groove or channel in the sidewall, the mean radius R_R of said

groove or channel is between R_C +10 mm and R_C - 10 mm, and the depth of said groove or channel is between 10 and 30% of the total sidewall thickness at the radius R_R.

7. (Previously presented) A tire according to Claim 6, wherein the cross section of said groove or channel is semicircular.

8. (Previously presented) A tire according to Claim 5, wherein the cross section of said groove or channel has a form defined by the succession of two arcs of a circle: a first, radially upper, concave arc of a circle, of radius r and of a length of between $\pi r/2$ and πr, extended tangentially by a second, convex arc of a circle, the radius of curvature r' of which lies between r and R', R being the radius of curvature of the outer wall of the sidewall measured at the radius R_R, said second arc of a circle also being tangent to said outer wall.

9. (Previously presented) A tire comprising a carcass reinforcement anchored within each bead to a bead wire, a crown reinforcement and a tread joined to two beads by means of two sidewalls, the axially outer edges of the single mix of the tread being folded over onto the radially outer edges of the rubber mixes of the sidewalls, wherein the circular junction J between the single rubber mix of the tread and the rubber mix of the sidewall is positioned such that its radius R_C on the axially outer wall of the tire lies firstly between 0.9 R_S + 0.1 R_B and 0.8 R_S + 0.2 R_B and secondly between R_{SS} and 0.9 R_{SS} +0.1 R_B, R_S being the equatorial crown radius of the tread, R_{SS} the equatorial radius of the center line of the carcass reinforcement, and R_B the radius of the bead seat measured on the line perpendicular to the axis of rotation of the tire passing through the center of gravity of the cross section of the bead wire, the circular junction J between the mixes in question being close to at least one circumferential groove or channel in the sidewall, the mean radius R_R of said groove or channel being between R_C + 10 mm and R_C – 10 mm, the depth of said groove or channel being between 10 and 30% of

the total sidewall thickness at the radius R_R, and the cross section of said groove or channel having a form defined by the succession of two arcs of a circle: a first, radially upper, concave arc of a circle, of radius r and of a length of between $\pi r/2$ and πr, extended tangentially by a second, convex arc of a circle, the radius of curvature r' of which lies between r and R', R' being the radius of curvature of the outer wall of the sidewall measured at the radius R_R, said second arc of a circle also being tangent to said outer wall.